

4 Petroleum operations in the Norwegian economy

Investment

Other key figures



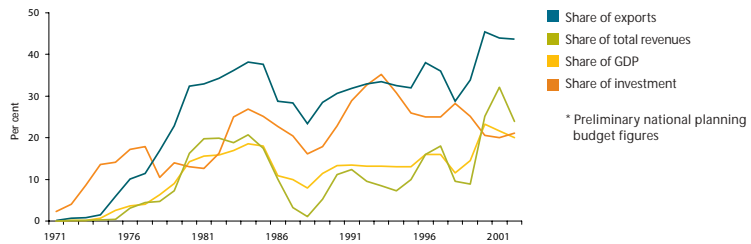


Figure 4.1 Macroeconomic indicators for the petroleum sector. (Source: Statistics Norway)

Norwegian oil and gas production has increased substantially over recent decades, and Norway ranks today as the world's third largest exporter of crude after Saudi Arabia and Russia. The oil industry now accounts for a substantial share of the Norwegian economy. Petroleum production and pipeline transport create substantial revenues for licensees and the state. At the same time, development and operation consume considerable resources. This chapter presents an overview of resources utilised and value added in production and pipeline transport.

The significance of the petroleum sector in the Norwegian economy is indicated in figure 4.1, which presents various indicators from the national accounts for this sector as a percentage of the total national economy. Its share of gross domestic product, exports and total government revenues has been substantial over the past two decades, reaching a particularly high level in 2000, 2001 and 2002.

The principal reason why revenues have been so high in recent years is a combination of high oil prices, a strong NOK/USD exchange rate and historically high petroleum production. Petroleum investment's share of total capital spending in the Norwegian economy was at its highest in the early 1990s.

Figure 4.2 breaks down the government's net cash flow from petroleum operations into its components. This clearly shows that the government's most important revenue sources in recent years have been cash flow from the state's direct financial interest (SDFI) and from taxes.

Investment

Total investment in the petroleum sector has been above NOK 40 bn every year since 1992, and peaked in 1998 at roughly NOK 80 bn. Capital spending came to NOK 59 bn in 2002. Figure 4.3 shows investment in the petroleum sector by exploration, land-based petroleum operations, pipelines and fields.

Investment in the petroleum sector totalled about NOK 30 bn per year from 1985 to 1990. It has since increased substantially, and was particularly high in 1993 and in 1997-99.

These peaks reflect both heavy investment in new fields and spending on gas pipelines to continental Europe.

The following fields and projects on the NCS were under development at 31 December 2002: Fram, Grane, Kristin (Halten Bank West), Kvitebjørn, Mikkell, Valhall flanks, Valhall water injection, Byggve, Skrine and Snøhvit. Investment in 2003 is expected to show a moderate increase from the year before.

As oil and gas fields are depleted and production ceases, spending will be needed on abandonment or alternative use of installations.

Estimated annual investment in the petroleum sector until 2010 is shown in figure 4.4.

Other key figures

Figures in tables 4.1 to 4.4 are taken from the national accounts or other publicly available statistics, and are based on the definitions applied by Statistics Norway.

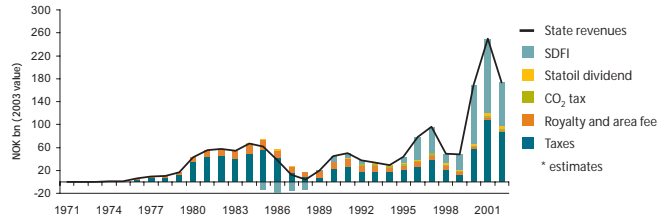


Figure 4.2 Net cash flow to the state from petroleum operations. (Source: National accounts and state budget)

Table 4.1 Key economic figures for the petroleum sector, NOK bn (money of the day).

	1994	1995	1996	1997	1998	1999	2000	2001	2002*
Gross product	114.2	121.6	167.5	183.1	131.6	178.6	341.6	325.8	294.1
Export value	108.6	115.5	159.8	167.4	122.9	164.9	312.0	307.5	281.5
Accrued investment	53.6	47.9	51.3	62.2	80.3	68.2	59.7	56.2	59.0
Employment (thousands)	18.7	17.7	17.0	16.8	16.1	16.4	16.5	16.1	16.4

(Sources: Statistics Norway, Ministry of Finance)

* estimate

Table 4.2 Petroleum operations in the Norwegian economy.

	1994	1995	1996	1997	1998	1999	2000	2001	2002*
Share of gross product	13.1	13.1	16.3	16.5	11.6	14.5	23.2	21.3	19.2
Share of export value	32.6	32.4	38.1	36.3	28.8	33.9	45.5	44.0	44.1
Share of total employment	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7

(Source: Statistics Norway)

* estimate

The figures exclude value creation and resource utilisation in drilling and exploration, the supplies industry, refining and petrochemicals.

Gross product is an expression for value creation in a sector during a year, and equals the value of gross production less the value of commodities employed for production. The gross domestic product (GDP) sums the gross product of all sectors.

Export value is calculated at the Norwegian border. The value of gas exports is calculated at the boundary of the NCS. Oil exports are valued at the loading buoy for shuttle tankers and at the NCS boundary for pipeline transport. The export value of pipeline services is the transport value in Norwegian-owned pipelines from the NCS to foreign terminals.

Total accrued investment represents overall

capital spending on production and pipeline transport, and includes exploration costs and investment on land directly related to petroleum operations.

Norwegian petroleum operations account for a substantial proportion of overall investment in the country. Capital spending by this sector represented about 20 per cent of the total for mainland Norway in 1984-90. This proportion was substantially higher in the early 1990s, and came to about 35 per cent in 1993.

The big increase reflects not only heavier investment by the petroleum industry but also lower spending in other sectors.

Investment in mainland Norway has increased in recent years, and petroleum-related spending corresponded to 22.8 per cent of the mainland figure in 2002.

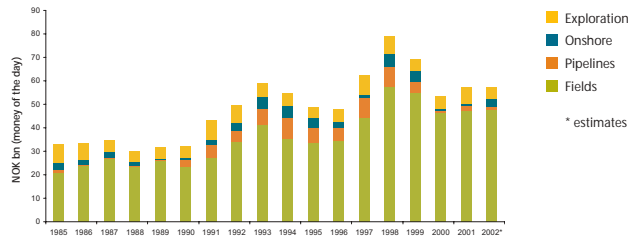


Figure 4.3 Investment 1985-2001.
(Source: Statistics Norway)

The direct employment effect of crude oil/natural gas production and pipeline transport is relatively small, accounting for less than one per cent of total jobs in Norway. When indirect effects are included, the impact is higher than table 4.1 indicates. See also chapter 11 on industry, employment and technology development.

Total wealth in the petroleum sector

Petroleum revenues represent a substantial asset for the Norwegian community. Remaining oil and gas resources on the NCS are nevertheless the largest assets.

Although less than a quarter of these resources have so far been produced, the industry has contributed considerable revenues. Over more than 30 years of production, the offshore sector has generated an income for the government in the order of NOK 1 500 bn in current value.

This has been achieved despite heavy investment during the period, which will yield a return for many years to come.

Roughly NOK 600 bn of these revenues have been placed in the Government Petroleum Fund, with the remainder used to meet current government expenditures. The value of the produced resources gives an indication of what the remaining 75 per cent of the resources are worth.

Government Petroleum Fund

Established by an Act of 1990, the Government Petroleum Fund received its first transfers in 1996 for fiscal 1995. Its income represents the central government's net cash flow from petroleum activi-

ties, as well as the return on fund investments. Expenditures comprise an annual transfer to the Ministry of Finance corresponding to the amount of petroleum revenues applied in the fiscal budget to cover the non-oil deficit.

Capital in the fund acts as a buffer which provides greater room for manoeuvre in economic policy should oil prices or activity in the mainland economy decline, and serves as an instrument for coping with the financial challenges presented by an ageing population and declining oil revenues.

The fund totalled NOK 609 bn at 31 December 2002. This corresponds to about 40 per cent of gross domestic product. NOK 125 bn was transferred to the fund from the Ministry of Finance in 2002. Even with the inclusion of this transfer, a stronger NOK has meant that the overall value of the fund calculated in this currency declined by NOK 4 bn from 2001 to 2002. This has no significance for the fund's international purchasing power.

Government revenues

Securing high and stable government revenues from petroleum operations is an important objective of Norwegian policies for this sector. The most important instruments for generating such revenues, both immediately and in the long term, are the tax and royalty system¹, the state's direct financial interest (SDFI), and dividends from Statoil and Norsk Hydro.

¹ See chapter 3, Regulatory framework

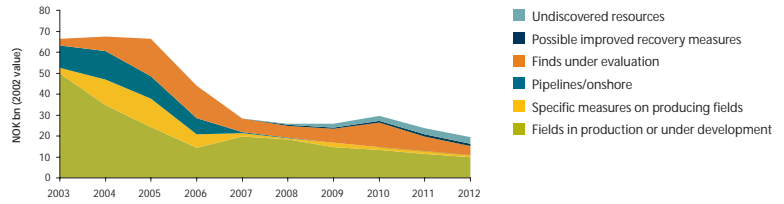


Figure 4.4 Estimates for future investment in fields and pipelines 2003–2012. (Source: MPE/NPD)

Table 4.3 Paid taxes and fees, NOK bn (2003 value)

	Income tax	Special tax	Royalty	Area fee	CO ₂ tax	Total
2001	42.6	66.1	2.5	1.0	2.9	115.1
2002*	33.4	53.8	1.4	0.5	3.0	92.1

(Source: National accounts and state budget)

* Preliminary national planning budget figures.

Table 4.4 Key figures for the SDFI

	Receipts	Payments	Investment	Net cash flow
2001	174.0	45.1	17.0	128.9
2002*	113.1	37.4	13.9	75.7

(Source: National accounts and state budget)

* Preliminary national planning budget figures.

Figure 4.2 shows state revenues (taxes, royalty, net SDFI cash flow, sale of SDFI assets and Statoil dividend) from petroleum operations in 1977-2002. Net income of about NOK 14 bn from the sale of Statoil shares is not included in the state's net cash flow in figure 4.2.

Table 4.3 shows tax receipts from petroleum operations over the past two years. Preliminary figures indicate that paid taxes and fees for 2002 totalled NOK 92.1 bn in 2003 value. Although this was a reduction of 21.9 per cent from 2001, it nevertheless represents the second highest annual figure since petroleum production began on the

NCS. The special tax accounted for 60 per cent of the total.

Table 4.4 shows net cash flow and investment for the SDFI. Net revenue of roughly NOK 40 bn from the sale of SDFI assets to Statoil is included in net cash flow for the SDFI. NOK 8.7 bn from the sale of SDFI assets to Norsk Hydro and others is included in 2002.

The SDFI accounts for a large part of Norway's petroleum activities. Its investments corresponded to about 30 per cent of capital spending on the NCS in 2002.

